

**The Use of Self-Portraiture to Increase
Sense of Agency in College Students: An Exploratory Study**

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Institutional Review Board (IRB)
Albertus Magnus College

DATE: March 7, 2023

Re: IRB # 20230307-ED

Dear Emily,

This letter serves as an official approval by the Albertus Magnus College IRB for you to conduct the study on “self-portraiture and sense of agency” as described in the IRB application submitted on 2/22/23. Please ensure that the confidentiality of your research participants is properly protected and that you remain within the boundaries you stated in the IRB application. If those boundaries change in relation to the study participants, please notify the IRB as an amendment may be necessary.

Your study is authorized to begin as of the date of this approval letter and is valid for one year, ending on March 7th, 2024.

If you have any questions, please contact Dr. Joshua Abreu, the IRB Administrator, by e-mail at jabreu1@albertus.edu.

Sincerely,

Joshua Abreu, Ph.D.
IRB Administrator

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Abstract

This study examined the agency levels of college students and how drawing a self-portrait may increase that sense of agency. The life transition for college students can be difficult if they were not raised in an autonomy-supportive environment or if they have poor mental health (Davidson & Beck, 2018). The author of the present study hypothesized that creating a self-portrait would increase college students' levels of agency more than landscape drawings, using colored pencils. The Sense of Agency Scale, measuring both positive and negative agency, was administered pre and post drawing activities. Participants ($N = 15$) were randomly assigned to either drawing a self-portrait or draw a landscape. The findings indicate that the hypothesis was not supported. The self-portrait condition resulted in no change in positive or negative sense of agency. The landscape condition shows a decrease in positive agency levels, opposite the expected direction, and a decrease in negative agency as expected. Both findings are not statistically significant, most likely due to sample size; however, Cohen's d values show medium effect sizes. Exploratory analyses show a significant relationship exists between art experience and pre-test negative agency scores. Themes noticed in the art-making process and final pieces are discussed.

The Use of Self-Portraiture to Increase the Sense of Agency in College Students

Self-portraiture has been used throughout the centuries for self-reflection, exploration, and communication of ideas about the subject of the artwork (West, 2004). However, to date, there has been a dearth of research on the therapeutic applications of self-portraiture. Art therapists have used human figure drawings as a form of unconscious self-projection in art-based diagnostic tools since Goodenough's Draw-A-Man (1926) assessment and, later, Buck's (1949) House-Tree-Person (HTP) drawing assessment. The two measures utilize nonspecific drawings of a person. Berryman (1959) adapted the HTP to include a self-portrait to examine an individual's self-concept more directly. The research on self-portraits as an intervention, as opposed to an assessment tool, is sparse, perhaps due to the general anxiety associated with being asked to draw oneself (Koufer, et al., 2004).

Creating a self-portrait offers great potential for the creator to engage in exploration of self, bolster autonomy and agency, examine one's identity and self-confidence, as well as the opportunity for the creators to control how they are portrayed (Carr, 2014; Muri, 2007). A population who may be able to greatly benefit from self-portraiture is college students. Erikson (1950) noted that young adulthood is a time that individuals are attempting to figure out their identities. In addition to an investigation into their own identities, college students are experiencing their first steps into independent living and require a sense of autonomy to thrive (Reed et al., 2016). To create long-lasting internal constructs of autonomy, it is important for individuals to participate in activities that promote agency by providing opportunities for choice-making, flexibility, and taking responsibility for their actions (Hansen, et al., 2017). Over time, the sense of agency that students gain from participating in these activities would increase

their overall sense of autonomy. To fill the gap in research, this study will examine whether the creation of self-portraits increases levels of agency in college students specifically.

Literature Review

Autonomy

Autonomy is a psychological state that is typically achieved in young adulthood and is characterized by an individual's belief in one's ability to function independently (Bekker & van Assen, 2006; Ryan & Deci, 2008). The concept of autonomy can be viewed through a variety of lenses, including educational, personal, gender-based, and moral (Bei et al., 2020; Bekker & van Assen, 2006; Kurtines, 1978). Autonomy is an important part of a young adult's growth and mental health (Huéscar Hernández et al., 2020), making it crucial for college students during their transition into more independent living (Carr et al., 2021). Through the educational lens of autonomy comes learner's autonomy. Learner's autonomy emphasizes the importance of students feeling confident in their ability to take charge of their own learning (Bei et al., 2020). The authors noted that the movement towards online learning brought on by the COVID-19 pandemic created a more independent environment for learning, which increased the demand for learner's autonomy. Students with higher levels of autonomy are confident in their ability to take initiative and responsibility for their education and are, therefore more likely to take steps to actively complete their goals. This ability to implement their plans and independently seek out education is a display of a high level of agency. Agency, as defined by Bandura (2001), noted an individual's ability to act with intention, set goals with forethought, and have the motivation to accomplish their goals.

Educational settings can bolster a student's level of agency by creating autonomy-enhancing environments (Bei et al., 2020; Hansen et al., 2017; Ryan & Deci, 2008).

Autonomy-supportive environments provide opportunities for students to make choices and set their own goals (Bei et al., 2020; Hansen et al., 2017). It also encourages support and understanding from others, reasonable expectations for the students, and minimization of pressure to perform a particular way (Hansen et al., 2017; Ryan & Deci, 2008).

The Developmental Evolution of Autonomy

Erikson (1950) developed a psychosocial theory of developmental stages that span a lifetime. For example, trust versus basic mistrust is when children begin to trust their caregiver to meet their needs. If the needs of the child are not met, the sense of trust will not develop. In later stages of life, an individual will enter the stage of intimacy vs. isolation in early adulthood. During this stage, individuals may choose to enter close relationships with others or isolate themselves. Each developmental stage provides the individual with an opportunity to move on to the next stage or fail to progress and become fixated. Erickson noted that the second stage of development, autonomy versus shame, occurs between the ages of 18 months to 3 years, as a period when children begin to develop confidence in their ability to do things on their own. If they are allowed to make mistakes and are properly supported by their caregivers, the stage will be resolved successfully, and the child will feel confident and autonomous in their life choices. If children are punished or humiliated when they make mistakes, their sense of autonomy will be hampered by a sense of shame or guilt when faced with failure or future responsibilities. As with other developmental stage theories, Erikson posited that individuals who did not successfully master any developmental stage may be conflicted in these areas into adulthood. Hence, adults lacking autonomy may not have been provided with autonomy-supportive parenting as children (Erikson, 1950; Soenens & Vansteenkiste, 2020).

Parenting styles can inhibit or support autonomy growth. Research suggests poorly developed autonomy is directly related to poor mental health (Huéscar Hernández et al., 2020; Lipson et al., 2020) or being raised in an environment characterized by a highly controlled parenting style known as *helicopter parenting*. Though well-intended, helicopter parents may unwittingly be inhibiting a young adult's capacity for autonomy by over-controlling and restricting free choices. While research suggests that helicopter parenting behaviors were not directly related to college students' depression, life satisfaction, or anxiety, overprotective parenting behaviors were associated with lower levels of autonomy in college students (Carr et al., 2021; Reed et al., 2016). Autonomy-supportive parenting showed a strong relationship with decreases in depression and an increase in physical health and overall life satisfaction (Carr et al., 2021). The research highlights the differences between the subsequent impact of a more controlling parenting style (helicopter) versus a more *encouraging* (autonomy-supportive) parenting style, the latter of which seems to support healthier mental health outcomes in young adults (Carr et al., 2021; Reed et al., 2016).

College Students

Autonomy-supportive environments are critical for many young adults who are entering college. The transition to college traditionally signifies a major autonomous transition into adulthood; the young adult typically moves out of the childhood home and begins functioning as an individual as opposed to functioning primarily within the family unit (Carr et al., 2021). A lack of autonomy-supportive parenting during childhood may make these life transitions very difficult for college students. Conversely, higher levels of autonomy can make college students more committed to their education and subsequently more academically successful, leading to healthier adult life transitions (Davidson & Beck, 2018).

While the transition from high school to college in itself can be difficult, the recent COVID-19 pandemic proved to exacerbate these milestone challenges as evidenced by a significant decline in the mental health of college students on a global scale over the last two years. López-Castro et al. (2021) found that a culturally diverse sample of New York City college students had clinically significant increases in their levels of stress, anxiety, and depression due to the pandemic. Gewalt et al. (2022) found similar results in German college students, with a decrease in almost 50% of the student sample's physical and mental health, worsening feelings of sadness, being overwhelmed, and negative stress. The research highlighted the importance of students needing to feel a sense of agency over their life. Students who felt a lack of ability to take action or experienced a low sense of control during the pandemic reported more negative emotions, less social interaction, and worsening health (Gewalt et al., 2022). Lipson et al. (2022) collected data on a diverse population of college students regarding their mental health over the course of eight years. They found a significant decline in mental health in students during the year 2021 as compared to those in college eight years prior. Now, more than ever, college students need mental health services and autonomy support through opportunities to exercise their agency.

Therapists can provide autonomy-supportive environments for clients that may not have received this scaffold in childhood in order to allow for building a stronger sense of autonomy in the present (Ryan & Deci, 2008). Higher levels of autonomy have been linked to positive adaptive behavioral changes that allow clients to overcome challenges on their own. For example, Steiger et al. (2017) found that combining the support of clinicians and family members when treating eating disorders increased autonomous client motivation to achieve treatment goals, suggesting that increased autonomy may be related to positive therapeutic

outcomes and reduced symptoms. These clients were able to exercise their sense of agency and take action to participate in treatment, which contributed to building their confidence in their ability to succeed. Similarly, Ryan and Deci (2008) identified that an autonomy-supportive therapeutic relationship and environment allow clients to integrate who they are into the behavioral changes they are making. Ryan et al. (2011) suggest that to support autonomy growth in counseling, therapists should be supportive of the client's choices, view things from their perspective, and decrease the sense of pressure to perform in a certain way.

Self-Portraiture

History

Self-portraiture began in the late fifteenth to early sixteenth centuries, coinciding with the invention and broadening availability of flat mirrors. The portraits originally started as a signature for an artist, and soon were used as a way to portray ideas about the creator (West, 2004). Eventually, self-portraiture developed into a tool for self-reflection and examination (Muri, 2007; West, 2004). This shift towards the exploration of self began in the late nineteenth and early twentieth centuries when Freud's (1920) theory of psychoanalysis as a tool for psychic self-reflection became popular. In this context, artists created self-portraits that encompassed autobiographical features and reflections of their inner thoughts and feelings (West, 2004).

Self-portraits can be created in a variety of ways, including using traditional two-dimensional art materials such as paint, pencils, or photography, as well as three-dimensional sculpture. Self-portraiture may realistically represent how the person looks or abstractly represent how they feel or imagine ideas, spiritual beliefs, or any other concept related to the self (Muri, 2007). Frida Kahlo, a Mexican surrealist painter, created a multitude of self-portraits that examined her mental and physical struggles throughout her life (West, 2004).

Her paintings provide a visual autobiography of her heritage, the trials and tribulations of her marriage, and the mental and physical pain she experienced due to a debilitating accident (Carr, 2014; Kahlo, 1940; West, 2004). Vincent Van Gogh, a post-impressionist painter, documented his declining mental health through the creation of many self-portraits (West, 2004). Van Gogh reflected his emotional states through swirling and use of vibrant colors to exude deep feelings of pain, sadness, and mania he experienced throughout his life (Van Gogh, 1889; West, 2004). Self-portraiture has served artists throughout the centuries as a form of personal reflection and healing. The use of self-portraiture in art therapy can allow the creator to examine themselves and the world around them in a holistic manner (Muri, 2007).

Self-Portraiture in Art Therapy

Artists and art therapists have utilized self-portraiture to improve mental health for years, for reasons more intuitive than research-based, as the amount of research on the efficacy of self-portraiture for therapeutic outcomes is minimal. Muri (2007) discussed a variety of case studies of clients and artists using self-portraiture to decrease depressive symptoms, cope with physical illness, improve memory and self-awareness, and come to terms with traumatic experiences. In a study using self-portraiture with patients in palliative care, Carr (2014) found that having patients create self-portraits prompted better self-care and improved the patient's feelings of agency and motivation and decreased depressive symptoms. In later work, Carr (2020) found that the public exhibition of the artwork created with palliative care patients seemed to give clients a sense of purpose and increase their motivation to participate in therapy.

Other research supports the efficacy of creating portraits as an intervention for anxiety treatment. Becerra et al. (2021) conducted a quantitative pretest-posttest experimental study

investigating the use of different forms of self-portraiture to decrease anxiety in college students. Participants created three different types of self-portraits: literal representations of self, an abstract representation of self, and free drawing. Each of the self-portrait drawing interventions decreased feelings of anxiety. These studies exemplify the variety of therapeutic benefits that self-portraiture can have, including an increased sense of agency and improvement in mental health outcomes. Contrary to Becerra's et al. (2021) findings, creating a self-portrait can also increase anxiety levels. Koufer et al. (2004) examined the anxiety levels of cancer patients creating self-portraits versus individuals without cancer. The authors found that patients with cancer had difficulty with the changes in their appearance caused by the illness. This discomfort with their body image resulted in higher levels of anxiety while creating the self-portrait.

Summary

The use of self-portraiture has served as a therapeutic process for artists throughout the centuries (West, 2004). While it may be anxiety-inducing for some clients to create images of themselves (Koufer et al., 2004), others may find that self-portraiture has the potential to decrease feelings of anxiety and depression, as well as heal from trauma and cope with chronic illness (Becerra et al., 2021; Carr, 2014; Muri, 2007). Self-portraiture provides an opportunity for identity exploration and an increase in a client's sense of agency or autonomy (Carr, 2014). Young adults entering college are typically exploring their identity (Erikson, 1950) and taking on a new sense of responsibility as they transition to living independently (Carr et al., 2021; Reed et al., 2016). With the added current challenges faced by college students post-pandemic, identity exploration and the need for increasing a sense of agency seem of utmost importance.

Method

The present study aimed to examine the effect of self-portraiture on college students' levels of agency. To achieve this goal, students were asked to create either a self-portrait or a landscape drawing. The author hypothesized that creating a self-portrait would increase college students' sense of agency.

Participants

A sample of $N = 15$ undergraduate students between the ages of 18 and 25 years old ($M = 22.13$, $SD = 2.58$) were recruited to participate in this study. The sample consisted of 53.3% women and 46.7% men. White (non-Hispanic) participants made up 53.3% of the sample, Hispanic/Latinx participants were 33.3% of the sample, and Black or African American participants made up 13.3% of the sample. Participants were recruited through snowball sampling at a private Catholic college and on social media platforms.

Instruments

Demographics

Participants were asked to report demographic information. The demographic survey asked about age, ethnicity, gender identity, and past art experience (see Appendix A).

The Sense of Agency Scale

The SoAS (Tapal et al., 2017) is a 13-item self-report measure comprising of statements about participants' sense of agency. The items are scored on a Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The scale measures two different factors: Sense of Positive Agency (SoPA) consists of six items, and Sense of Negative Agency (SoNA) consists of seven items. Tapal et al. describe SoPA as a measure of the degree to which respondents feel as if they have control over their thoughts, feelings, and actions. The SoNA measures the degree of feeling helpless and unable to control what happens to them. The SoPA is calculated by adding

the score of questions 1, 4, 8, 9, 12, and 13, and total scores can range from 6 to 42. The SoNA was calculated by adding the scores of questions 2, 3, 5, 6, 7, 10, and 11, and total scores can range from 7 to 49. The test-retest reliability over a two-month period has been proven to be strong with an $r = .78$ for SoPA and $r = .74$ for SoNA. The authors noted the validity of this scale has been supported by the moderate to strong relationship between the SoNA subscale and the Obsessive-Compulsive Inventory Revised ($r = .35$), a disorder characterized by a low sense of agency. SoNA and SoPA had latent correlations with the General Self-Efficacy Scale (GSES-Initiative), ranging from $r = -.27$ to $.35$. Latent correlations between the two factors and the Physical Self-Efficacy Scale (PSE-Ability) were also found, ranging from $r = .16$ to $.06$. The reliability of the SoPA factor was estimated at (McDonald's) $\omega = 0.80$ (95% $CI = 0.76, 0.83$) and for SoNA, $\omega = 0.75$ (95% $CI = 0.67, 0.79$) with confidence intervals created using bias-corrected and accelerated bootstrapping with 1,000 replications (Tapal et al., 2017, p. 3).

Materials

Using a digital camera and ring light, the researcher photographed each experimental group participant individually from the shoulders up. The researcher printed the photograph of the participant in black and white using an inkjet printer on 8.5 in. x 11 in. (21.59 cm x 27.94 cm) copy paper. The control group received a choice between three black and white landscape photographs (Appendix B), each printed out separately on 8.5 in. x 11 in. (21.59 cm x 27.94 cm) copy paper. Other materials included white 9 in. x 12 in. (22.86 cm x 30.48 cm) mixed media paper, 6B graphite pencils, a General's Kneaded Eraser (small), Prismacolor™ Premier colored pencils (24 count), and Master's Touch™ portrait colored pencils (12 count).

Procedure

After IRB approval, participants were recruited for this study through the use of fliers (Appendix C) posted in buildings where undergraduate classes take place, the student center, and the library at a small liberal arts Catholic college, and through social media posts on Facebook and Instagram. The fliers had a QR code that automatically composed an email to the researcher to allow for easy sign-up. Interested participants were randomly assigned to either the self-portrait drawing experimental condition or the landscape drawing control condition. All participants first provided consent (Appendix D) and signed the art release (Appendix E) before participating in artmaking. Participants were then photographed by the researcher from the shoulders up in the experimental group. The researcher then printed out the photograph in black and white and deleted the photo from the camera. In the control group, the participant was presented with three landscape photos to select from. The study was conducted in a library classroom setting, providing ample workspace for artmaking as well as computers and printers for the printing of the photograph. Prior to the art directive, the researcher administered the Sense of Agency Scale to participants in both conditions. The participants had 5-7 minutes to answer the questions.

For each condition, participants were asked to create a drawing based on the printed photo. To decrease any anxiety created by the task, the researcher demonstrated how to transfer the outline of a photograph to the drawing paper (see transcript of instructions in Appendix F). For the experimental condition, the researcher stated, “I invite you to complete your self-portrait using the colored pencils provided. You have the freedom to choose to represent yourself and who you are in any way you would like.” For the control condition, the researcher stated, “I invite you to complete your landscape using the colored pencils provided. You have the freedom to complete the landscape any way you would like.” The participants in each condition then

completed the drawings using the colored pencils provided. After the art directives, participants once again completed the Sense of Agency Scale and a demographics survey and were then debriefed on the details of the study (see Appendix G).

It was anticipated that there would be minimal risks for those participating in the study. Some risks may have included increased feelings of anxiety about creating artwork or heightened emotions when reflecting on the artwork or viewing the photograph, particularly for those who worked on a self-portrait.

Results

To test the hypothesis that creating a self-portrait would increase college students' levels of agency more than landscape drawing, the author conducted paired sample t-tests. To determine changes in levels of positive and negative agency for both the landscape and self-portrait conditions. For this sample's pre-test, positive agency ranged from 26 to 42 ($M = 33.27$, $SD = 4.79$) with a somewhat low internal consistency of ($\alpha = .63$). However, Cronbach's alpha internal consistency for all other subscales pre and post are good to high and are presented with descriptives in Table 1.

In the landscape (control) condition ($n = 7$), as anticipated, the pre-test negative agency score ($M = 20.43$, $SD = 6.35$) is higher than the post-test ($M = 17.71$, $SD = 6.47$), as shown in Figure 1. This difference ($M = 2.71$, $SD = 3.86$) is not statistically significant ($t(6) = 1.86$, $p = .056$); however, according to Lakens (2013), the Cohen's d effect size is medium ($d = .70$). Contrary to expectations, the pre-test positive agency score ($M = 33.57$, $SD = 3.69$) was higher than the post-test ($M = 30.71$, $SD = 4.92$), as seen in Figure 2. Although this difference ($M = 2.86$, $SD = 4.56$) is not statistically significant ($t(6) = 1.66$, $p = .074$), the Cohen's d effect size is medium ($d = .63$).

In the self-portrait (experimental) condition ($n = 8$), the pre-test negative agency score ($M = 14.00$, $SD = 6.59$) was similar to the post-test score ($M = 13.75$, $SD = 5.99$) as can be seen in Figure 1. This difference ($M = 0.25$, $SD = 3.37$) is not statistically significant ($t(7) = -0.21$, $p = .420$), and the Cohen's d shows no effect ($d = .07$). For those doing a self-portrait, the pre-test positive agency score ($M = 33.00$, $SD = 5.83$) was similar to the post-test ($M = 33.25$, $SD = 7.61$), as displayed in Figure 2. As with the previous condition, this difference ($M = .25$, $SD = 5.37$) is not statistically significant ($t(7) = .13$, $p = .449$), and the Cohen's d shows no effect ($d = .05$). Contrary to expectations, the results show no change in the self-portrait condition in negative or positive agency.

To further explore the data, a two-tailed independent t-test was conducted to explore the role that gender may have played in the results of this study. Although not statistically significant, results show that decreases in both their positive ($M = -1.88$) and negative agency scores ($M = -1.63$) for women ($n = 8$), while men's ($n = 7$) decrease in negative agency is smaller and they essentially show no change in positive agency (Table 2) suggesting women may be more reactive to drawing activities. While the effect size is small for positive agency ($d = .28$), there is no effect for negative agency ($d = .13$).

In addition to the exploration of gender's role in this study, the author examined the relationship between art experience and pretest positive and negative agency scores. Two-tailed Pearson correlation coefficients were calculated and indicate a strong relationship between art experience and sense of negative agency ($r = .62$, $p = .014$); that is, those with more art experience score higher on negative agency. While sense of positive agency did not show a relationship with reported art experience ($r = .08$, $p = .788$), sense of negative agency was statistically significant in pre-test scores. Pearson correlations (two-tailed) of art experience with

change in agency from pre to post art activities show small negative correlations for positive ($r = 0.20, p = .472$) and negative ($r = -.31, p = .255$) agency, suggesting that those with more art experience had smaller responses to the interventions.

Discussion

This exploratory research study aimed to examine the effects of creating a self-portrait on college student's sense of agency. This was accomplished by having one group create self-portraits while the other group created landscape drawings. The results of the present study do not support the hypothesis that creating a self-portrait would increase college students' levels of agency more than landscape drawing.

As expected, there was a decrease in the negative agency scores after artmaking for the landscape, but there was no effect for the self-portrait condition. This could be due to the fact that, although randomly assigned, the landscape group started with much higher levels of negative agency ($M = 20.43$), compared to the self-portrait group's starting level of negative agency ($M = 14$). This difference may have allowed the scores to drop more drastically after artmaking. The self-portrait group all began with much lower sense of negative agency, making it difficult for them to decrease as much as those in the landscape group. The self-portrait group's lack of change in agency levels could also be attributed to feelings of anxiety some participants may have experienced during artmaking (Koufer et al., 2004). If some participants experienced anxiety during the artmaking and in doing so potentially decreasing their feelings of agency, while others did not feel anxious, it may have resulted in a lack of effect. Although the hypothesis was not supported and the decrease in negative agency for those drawing landscapes is not statistically significant, the medium effect size suggests that landscape artmaking can help lessen feelings of helplessness and lack of control in college students.

The results for the positive agency scores are more surprising. The self-portrait condition showed no effect; shockingly, there was a moderate decrease in positive agency scores in the landscape group. This decrease in the sense of control felt by the students in the landscape condition could have been caused by a number of factors. One factor that may have influenced the decrease in positive agency is the meditative state or unconscious “flow” that some may have enter when creating art. It is possible that the repetitive, rhythmic and potentially soothing motion of covering the entire page in graphite, as a step in the photo transfer technique, contributed to a change in mental state. Multiple participants provided the author with informal feedback that they “zoned out” while making art. They expressed that they felt like they were not thinking or planning out every movement or idea that they had; they were just acting on what popped into their heads. This self-reported “zoning out” may have influenced how those participants answered the post-test questions. When reviewing the SoAS after analyzing the results, questions 12 and 13 stood out as particularly relevant. Both questions focus on the planning and results of a participant’s actions. By nature, artwork almost never comes out as originally intended or planned, and the “zoning out” could have made the process feel as if no planning had been done at all.

Results showed that there is a statistically significant relationship between art experience and a negative sense of agency. Those with greater art experience have higher feelings of negative agency. This small correlation between participants with greater art experience responding less to the art intervention could potentially be caused by the fact that those with more art experience are accustomed to creating art influenced by their own preferences for subject matter and materials and may have felt constrained when creating art under the conditions inherent to the study.

Another factor that may have contributed to the results of this study is that agency levels typically increase over periods of time and may not be noteworthy after a single agency-supporting activity. Ryan and Deci (2008) and Steiger et al. (2017) discussed longitudinal studies conducted that saw long-term results when working with participants in agency and autonomy-supportive environments. Future investigations should conduct the study over a longer period of time, having participants engage in multiple agency-supportive art directives.

An informal qualitative analysis of the artwork from both conditions was conducted. Artwork created by the landscape control condition utilized much more color than that of the self-portrait group. The least amount of color used on one drawing in the landscape group was three different colors, and the most was 14. In the self-portrait group, some drawings had no color at all, and the largest number of colors used in one drawing was seven. The difference in color usage between the two conditions may suggest that some participants were not comfortable working on an image of themselves and wanted to complete it quickly. Although some of the drawings were in black and white in the self-portrait condition, some contained a lot of detail and shading, while others stayed simple. Future studies may want to observe the time each participant takes to create their artwork. The lack of color could also suggest that these participants may have been intellectualizing the artwork they were creating. The process of creating a self-portrait could either be considered more cognitive due to the desire to make the portrait realistic or because the self-portraiture can promote self-reflection (West, 2004). The participants may have put more pressure on themselves while creating it than those drawing an open landscape. In intellectualizing the artwork, they may have been more focused on the content they were creating than the process they went through to create it due to the expectation of a self-portrait resembling oneself.

Half of the self-portraits were created vertically, and the other horizontally. Participants were given the choice of which direction they preferred the photo to be taken in. The landscapes were all completed horizontally due to the orientation of the reference images. Interestingly, of the three landscape reference photos provided to the landscape group, five out of seven participants chose the same image with a mountain reflected in a lake.

In considering the behavior of participants who showed decreases in their negative agency scores and increases in their positive agency, it was noted that a couple of the participants with very high post-test positive agency scores advocated for themselves during the process of the experiment. The first participant asked the researcher to take an additional photo of them when they did not like the image taken of them for their self-portrait. The participant asked this researcher to try different positions and angles for the photograph until they were happy with the reference image. The second participant advocated for themselves by requesting that the reference photo be retaken because the participant's eyes were partially shut in the first. Additionally, participants who showed increases in their positive agency and a decrease in their negative agency also tended to manipulate their images. These participants either omitted important elements of the original drawing or added additional features to change the subject of the drawing. In one self-portrait, a woman left out her eyes and nose, leaving out what some may consider an important part of a self-portrait, as can be seen in Figure 3. This omission was not explained by the participant, so its meaning cannot be known for sure. Leaving out of the eyes and nose made the mouth the focal point of the face, perhaps to emphasize the participant's voice and the importance of speaking up. In the landscape group, one participant added what they identified as fins, turning the landscape into a fish. This image can be seen in Figure 4. Much like the participant who created the portrait with no eyes or nose, this participant did not explain

their reasoning for turning the landscape into the fish. Fish can symbolize good physical and emotional health (Reis & Hibbeln, 2006), which could potentially be linked to this participant's increase in agency levels.

As noted in the literature, increased levels of agency have been linked to individuals overcoming challenges on their own (Steiger et al., 2017). The process engaged in by the participants who advocated for themselves and those who chose to make the images truly their own appears to have been instrumental in increasing levels of agency. They identified a problem or an idea that may have gone against conventional norms, and they chose to do something about it. Those who advocated for themselves and those who changed the images displayed a level of confidence, suggesting that the participants understood the directive and had their own visions for their artwork. Participants who showed less change in agency also may not have liked their reference images but felt it was out of their control to choose another photo. This could have resulted in their agency levels remaining constant or even positive agency decreasing. They may have been dissatisfied with the final image and, therefore, lacked or even reduced feelings of confidence and control. Future investigations should be aware of these potential themes and patterns when replicating this study on a larger scale. It is important to note that the small size of the sample used in this exploratory study is a serious limitation and makes these results non-generalizeable. Outliers of the group, like those who manipulated their images or advocated for themselves during the process, may have impacted the findings and overshadowed any broader patterns that may have been achieved if the study had been conducted with a significantly larger sample.

Future studies could explore the use of different art mediums, such as paint, clay, or digital art. This change in art medium and technique could reveal whether the participant's

reported “zoning-out” is a factor that could be accounted for by different media. This study demonstrated that there could be a decrease in a participant’s negative sense of agency when drawing a landscape. Conducting this study with a larger sample could provide the power needed to render statistical significance. It would also allow for a more representative sample, not subject to any particularities of this small sample, perhaps resulting in effects more consistent with expectations and providing insight into new ways to increase levels of agency in young adults. It may also be interesting to conduct the study with students who attend college in person versus those who attend online due to online learning requiring a higher level of independence and personal responsibility for one’s education (Bei et al., 2020). Finding new applications and approaches to creating a sense of agency and use of autonomy-supporting environments and directives could have positive implications for the field of art therapy.

Research on self-portrait work and general artmaking with college students is sparse. This study’s results suggest that creating art of a self-portrait or landscape differently impacts a student’s sense of agency. The advantages of art-making should be recognized and offered to students who are having difficulty adjusting to being in college or who are struggling with their responsibilities, as the participants who took the opportunity to make choices and advocate for themselves showed most improvement in agency for both subscales. If applied in an art therapy setting, this kind of artmaking could help increase students’ sense of control and confidence in their personal choices and abilities. Further research needs to explore what other factors lead these individuals in each condition to benefit more than others from the art-making activities.

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Tables

Table 1

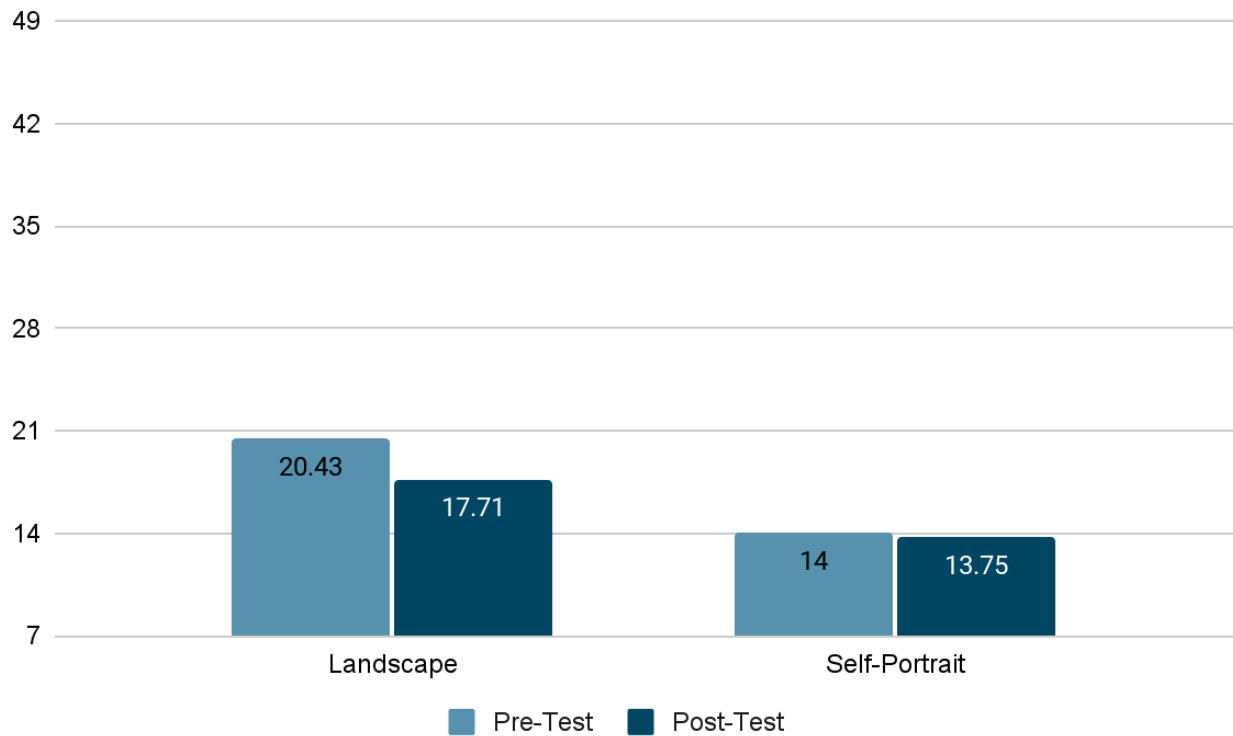
Reliability and Descriptives for Pre and Post Measures

Measure	Min	Max	<i>M</i>	<i>SD</i>	<i>a</i>
Pre-test					
Positive Agency	26.00	42.00	33.27	4.79	.63
Negative Agency	7.00	33.00	17.00	7.07	.81
Post-test					
Positive Agency	20.00	42.00	32.07	6.41	.77
Negative Agency	7.00	27.00	15.60	6.33	.75

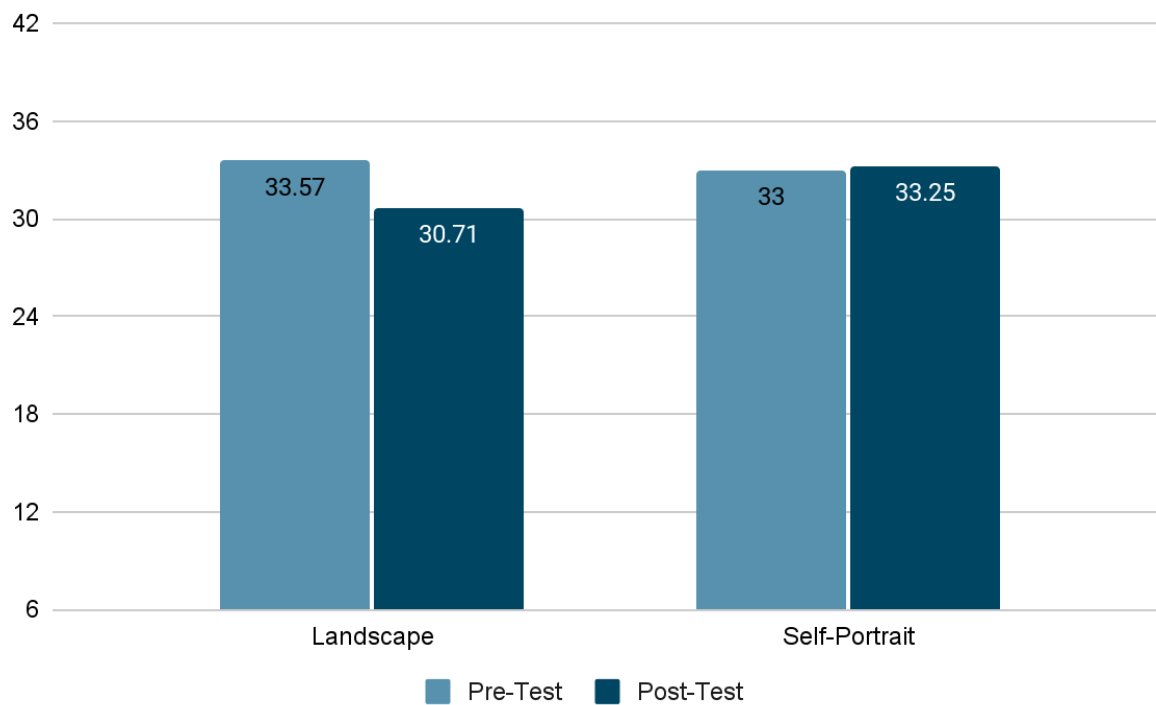
Table 2*Differences in Positive and Negative Agency by Gender*

Gender (N=15)	<i>M</i>	<i>SD</i>	<i>d</i>	<i>t</i>	<i>df</i>	<i>p</i>
Change in Positive Agency Score			-.28	-0.55	13	.602
Woman	-1.88	4.58				
Man	-0.43	5.88				
Change in Negative Agency Score			-.13	-0.24	13	.812
Woman	-1.63	4.41				
Man	-1.14	3.02				

Note. Though the results are not statistically significant, there is a small effect size for positive agency.

Figures**Figure 1***Sense of Negative Agency by Drawing Condition*

Note. Landscape drawing shows a greater decrease in negative agency than the self-portrait condition.

Figure 2*Sense of Positive Agency by Drawing Condition*

Note. Landscape drawing unexpectedly decreases positive agency, while self-portrait shows no effect.

Figure 3*Self-Portrait*

Note. A self-portrait drawn by a 20-year-old Caucasian woman. Change in positive agency: +6, change in negative agency: -2.

Figure 4*Landscape Fish*

Note. A landscape drawing turned into a fish by a 22-year-old Caucasian man. Change in positive agency: +4, change in negative agency: -3.

Appendix A Demographic Form

1. What is your age? _____

2. Which option best represents your primary ethnic identity?

- ☐ Black or African American
- ☐ White (non-Hispanic)
- ☐ Hispanic/Latinx
- ☐ Native American or American Indian
- ☐ Asian/Pacific Islander
- ☐ Not Listed: _____

3. Which option best represents your gender identity?

- ☐ Man
- ☐ Woman
- ☐ Non-binary
- ☐ Not Listed: _____
- ☐ Prefer not to state

4. Do you have any previous art experience?

No art experience	Some art experience	Moderate art experience	A lot of art experience	Professional artist
1	2	3	4	5

5. How often do you create art?

Never	Rarely	Sometimes	Often	Daily
1	2	3	4	5

Appendix B
Landscape Photographs

Landscape Photograph #1



Landscape Photograph #2



Landscape Photograph #3



Appendix C
Recruiting Flier



ART STUDY

SEEKING PARTICIPANTS!

No art experience required!

This study is looking for undergraduate college students 18-25 years old.

Participation consists of drawing either a self-portrait or a landscape using photographs and filling out a short survey.



INTERESTED?

Scan the QR code to register or email Emily de la Rocha at eedelarocha@albertus.edu

Albertus Magnus MAATC Graduate Thesis Research

Appendix D

Informed Consent Form

This study is being conducted as part of the requirements for the Master of Arts in Art Therapy and Counseling degree at Albertus Magnus College. The goal of this study is to explore the effects of drawing on one's feelings. During this study, you will be asked to participate in art-making and fill out a questionnaire. You will be randomly assigned to either portrait or landscape drawing using a photograph as the basis. If you are assigned to the portrait condition, your picture will be the basis for the drawing. Please note that your art-making abilities are not a factor in this study. All information collected will be confidential. To maintain confidentiality, the artwork created and your answers on the survey during this study will be numbered and your name will not be connected to the work in any way. You will be told at the end of the study more detail on the purpose of the study.

Potential risks involved with participation in this study may include frustration with art making or possible negative feelings from viewing your portrait or questions on the questionnaire. The benefits of participating include assisting a graduate student in the completion of her thesis requirement, as well as contributing to research on the effects of art therapy. You may also enjoy the art activities. Participation in this study is completely voluntary, and you are able to withdraw at any point without penalty. This study has been approved by the Albertus Magnus College Institutional Review Board (IRB).

If you have any known allergies to art materials, please inform the researcher. If you have any questions or concerns about this research, you may contact the following individuals:

Investigator

Emily de la Rocha: eedelarocha@albertus.edu

Thesis Advisors

Hilda Speicher, Ph.D.: hspeicher@albertus.edu and Julia Vicars, MAAT, ATR, LPC, CCTP:
jvicars@albertus.edu

Or:

Chair of IRB Joshua Abreu, Ph.D.: jabreu1@albertus.edu

By signing this form, I acknowledge that I am 18 years of age or older, understand the study described above, had any questions addressed, and agree to participate.

Print name _____

Signature _____ Date _____

☐ I have received a copy of this form to keep for myself.

Appendix E

Art Image Release Form

The artwork that you create during this study will remain confidential. Your name will not be connected with your artwork. Photographs of the artwork will *only* be taken with your consent for the purposes listed below. Photographs taken of the artwork *will not* contain any identifying information.

I agree to have my artwork photographed without identifying information for the following purpose(s): (Please check all that apply)

- ☐ Educational and training purposes
- ☐ Presentation at a professional conference
- ☐ Publication in a professional journal
- ☐ None of the above

I hereby give consent as noted above for the photographing of my artwork.

Print name _____ Date _____

Signature _____

Please note that if at a later date you choose to withdraw permission for your artwork to be shown as noted above, it may be difficult or impossible to contain images already disseminated in public settings.

☐ I have received a copy of this form to keep for myself.

Appendix F

Photo-Transfer Method Instructions

1. Tape 8.5 in. x 11 in. mixed media paper down to the table using blue painter's tape. This ensures that the paper does not shift while transferring the photo. The paper should be taped vertically or horizontally, depending on the orientation of the printed photo that will be used for tracing.
2. Retrieve your printed photo. Flip over the photo, so the blank side of the paper is facing up, and the photograph is face down.
3. Using the 6B graphite pencil, color all over the blank side of the paper to cover it all over with graphite. Ensure that graphite covers all of the blank paper.
4. Turn the photo over so the printed image can be seen again, face up towards you, graphite side facing down.
5. Position the photo on the mixed media paper that was taped to the table. Place it where you would like the image tracing to appear on the paper.
6. Tape down the corners of the photo down with blue painter's tape so the image does not shift during tracing.
7. Trace the photograph using heavy pressure with the 6B pencil. This will make the graphite on the back of the paper transfer to the mixed media paper. Make sure to trace the entire outline and any details you would like included.
8. Once finished, remove the traced photo to reveal the transferred sketch.

Appendix G

Debriefing Form

Debriefing Form: Self-Portraiture and Agency

The purpose of this study was to test the use of creating a self-portrait for increasing a sense of agency in young adults. Research has suggested that creating self-portraits may be useful for exploring identity, internal reflection, and increasing a sense of agency. The questionnaire you were given measures levels of agency. Participants were randomly divided into two groups. One group drew portraits and the other group drew landscapes.

The hypothesis was that those participating in the self-portrait condition would increase their sense of agency.

If you would like to know the results of this study, please provide your email address to the researchers. Please note that no individual results can be provided, results can only be provided in aggregate.

Thank you for your voluntary participation in this study!